Test Report No. 284604 No. of Pages 5

Report of Test on

CAPCO BLAZE-SHIELD TYPE D - UNTAMPED (NO ADHESIVE USED).

HUMIDITY TEST

for

COLUMBIA ACOUSTICS AND FIREPROOFING COMPANY
STANHOPE, NEW JERSEY 07874

International Testing Laboratories, Inc.

NEWARK 5, NEW JERSEY

Date September 14, 1964

	Prepared	Checked	Approved
By	M. Glenn Geer		D. M. Hoffman
Signed	M. Glenn Geer		D. M. Hoffman
Date	Sept. 14, 1964		Sept. 14, 1964.

PA LAW DEPARTMENT
58855

Administrative Data

1.0 Purpose of Test:

To subject the submitted Cafco Specimens to a Humidity Test in accordance with the Test Procedure of this report.

2.0 Manufacturer: Columbia Acoustics and Fireproofing Company
Furnace Street
Stanhope, New Jersey

3.0 Manufacturer's Type or Model No.: Cafco Blaze-Shield Type D - Untamped (no adhesive used).

4.0 Drawing, Specification or Exhibit: Specification MIL-E-5272A, Procedure I, Amendment I.

5.0 Quantity of Items Tested: Two (2) "I" Beams.

6.0 Security Classification of Items: Unclassified

7.0 Date Test Completed: September 14, 1964

8.0 Test Conducted By: International Testing Laboratories, Inc.

9.0 Disposition of Specimens: Returned to Columbia Acoustics and Fireproofing Company.

10.0 Abstract:

The Humidity Test was conducted in accordance with the referenced specification and the results are as follows:

Beam No. 1 (Cafco Coated Beam) - The portion of the Beam that had no paint protection showed minor evidence of corrosion on all surfaces. The portions of the Beam that were protected with "shop" paint and "field" paint showed no evidence of corrosion.

Beam No. 2 - The portion of the Beam that was not protected with paint

10.0 ABSTRACT: (Continued)

showed definite evidence of corrosion on all surfaces. The portions of the Beam that were covered with "shop" paint and "field" paint showed minor evidence of corrosion on the top flat surface of the Beam. All other surfaces showed no evidence of corrosion.

It should be noted that the Cafco coated "shop" painted surface showed no evidence of corrosion; whereas, the "field" paint over the "shop" paint showed minor evidence of corrosion.

APPARATUS

Low Temperature - High Temperature - Humidity Chamber, Model 150-45, manufactured by Bowser Manufacturing.

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TEST PROCEDURE

The Humidity Test was conducted in accordance with the Specification MIL-E-5272A, Procedure I, Amendment 1, Paragraph 4.4.1. However, for completeness of this report, the following is the procedure as it was conducted.

Two identical "I" Beams were submitted for the Humidity Test. The protective coating on each "I" Beam was divided into three parts; one-third of each Beam was not protected, one-third was protected with a coat of "shop" paint, and the remaining third was protected with a coat of "shop" paint plus a coat of "field" paint. One "I" Beam was entirely covered with the Cafco Specimen (Beam No. 1) and the other Beam was not (Beam No. 2). The Cafco coating was approximately 3/4" thick.

Both Beams were then placed within a Temperature Humidity Test Chamber which was set up to simulate installed conditions. The chamber temperature was first maintained between 68° F to 100° F with uncontrolled humidity. During the first two hour period, the temperature was gradually raised to 160° F. This temperature was maintained for the next six hour period. During the following sixteen hour period, the temperature of the chamber was slowly lowered to 68° F - 100° F. This consisted of one cycle of operation. The relative humidity throughout the entire cycle was maintained at 95%. The cycle was repeated a sufficient number of time to extend the total time to 240 hours or 10 days.

At the completion of the 10 day Humidity Test, the Beams were removed from the Temperature Humidity Chamber and visually examined for evidence of deterioration or corrosion. During this examination, the Cafco Specimen was partially removed from the Cafco coated Beam for comparison with the other Beam. Photographs of the two beams were taken to show the various degrees of corrosion.

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TEST RESULTS

The Humidity Test was conducted in accordance with the Test Procedure of this report, and the results are as follows:

Beam No. 1 (Cafco Coated Beam) - The portion of the Beam that had no paint protection showed minor evidence of corrosion on all surfaces. The portions of the Beam that were protected with "shop" paint and "field" paint showed no evidence of corrosion.

Beam No. 2 - The portion of the Beam that was not protected with paint showed definite evidence of corrosion on all surfaces. The portions of the Beam that were covered with "shop" paint and "field" paint showed minor evidence of corrosion on the top flat surface of the Beam. All other surfaces showed no evidence of corrosion.

It should be noted that the Cafco coated "shop" painted surface showed no evidence of corrosion; whereas, the "field" paint over the "shop" paint showed minor evidence of corrosion.

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"I" Beams following exposure to the Humidity Test

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